



# TACOs fly unique Defense Systems Evaluation mission

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The New Mexico Air National Guard “TACOs,” the Air National Guard’s only fighter unit with a branch primarily dedicated to the test support of major defense systems, is helping set the stage for future military engagements.

Defense Systems Evaluation, a mission belonging to the 150th Fighter Wing, performs year-round test support to further develop the nation’s current and emerging defense systems.

“Defense Systems Evaluation is the only test support program of its kind, and has assisted in the development of many of the Army’s defense systems, such as the Patriot and Avenger,” said Col. William R. Robinson, vice wing commander for the 150th Fighter Wing. “If not for Defense Systems Evaluation, some of these capabilities could possibly not be available to our combat forces today.”

“Defense Systems Evaluation provides test support for both the research and development test and operational test communities,” said Robinson. “For research and development, the White Sands Missile Range in southern New Mexico is where most tests are conducted for Army air defense systems development.”

Defense Systems Evaluation aircraft fly a variety of profiles to accomplish these tasks, including the use of jamming pods, deploying chaff or flares and launching or towing aerial targets, said Robinson. Once these systems are sent to the Army for operational training, the Defense Systems Evaluation branch gets involved in more dynamic field testing of the systems to include using flight tactics dictated by current threat analysis agencies. This support provides the eventual user a realistic evaluation of the systems in situations more applicable to what they anticipate in actual combat.

“The 150th is the test unit for all air missile defense testing and training activities,” said Stephen Krasovetz, senior intelligence officer, U.S. Army Air Defense School Directorate for Combat Development. “Defense Systems Evaluation is critical to the success of all air and missile defense branch systems over a 35-year span.”

The 150th Fighter Wing is the unit of choice, prima-

rily due to the flying unit’s willingness, availability and ability to assimilate various missile systems.

The TACOs participated in every major initial operational test and evaluation since the 1970s, leading to tremendous advancements of missile defense systems like Patriot, which now boasts a longer range and improved radar in order to counter Theatre Ballistic Missiles and air breathers (fixed wing aircraft and helicopters), said Don Graziano, an air controller for McGregor Range, N.M.

“We value their availability on short notice, phenomenal support and ability to carry our instrumentation clearances,” said Graziano. “Tens of millions of dollars have been saved in terms of paperwork, man hours and clearances since inception of the (Defense Systems Evaluation) program. Can’t say enough about the TACOs.”

Students of the Army Captains Career Course, Ft. Bliss, Texas, have begun making regular visits to the 150th Fighter Wing each year because the Defense Systems Evaluation mission is critical to the training and development of the Army’s most significant air defense systems, said Capt. Samuel Morgan, Air Defense Small Group Instructor, Air Defense Artillery School, Ft. Bliss.

“We love coming up here because Defense Systems Evaluation is familiar with the same Army missile defense systems that the officers of the Captains Career Course are,” said Morgan. “The tours are invaluable in understanding the link between the Defense Systems Evaluation mission and the Army’s Air Missile Defense community.”

Defense Systems Evaluation was an Air Force program until 1971 when the Air Force asked the New Mexico Air National Guard to take over the program, said Robinson. Around for more than 30 years, Defense Systems Evaluation has provided genuinely unique support to DOD, and provided countless hours to flight test communities around the world.

The Defense Systems Evaluation branch has also been successful in supporting a wide variety of programs, including certifying the Navy AEGIS cruiser, (high-powered missiles and radar), and advancements of the Air Force F/A-22 Raptor.”

**DEFENSE SYSTEMS EVALUATION**  
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TOP-TACO F-16s alongside the F-22 testbed. The TACOs flew test support in the initial phases of the F/A-22 Raptor’s development. Currently, the TACOs ensure that each F/A-22 aircraft performs successfully off the production line by flying alongside as “chase” planes.

LEFT TOP–A drone on launch, either to tow a target that will be fired upon by a Manpad Stinger, or be followed by F-16s to determine target flight performance.

LEFT CENTER–Drones such as this one are often used by the Army to tow targets for actual test firing of missiles, such as the Manpad Stinger missile. Though the TACO F-16’s tow the same targets to test its flight characteristics, the actual firing on the target is only done when being towed by the drone.

LEFT BOTTOM–An F/A 22 Raptor.  
Photo by Tech. Sgt. Kevin J. Gruenwald)



TOP-TACO F-16 pulling a cruise missile tow target. The tow line is released anywhere from 1,000 feet to a half mile. Performance testing is then done on the target by 150th Fighter Wing pilots in other F-16s serving as “chase” planes. Flight characteristics of the tow target are observed, recorded and often video taped.

ABOVE–Cruise missile tow target

**Photos courtesy of Boeing Company**